



## **Space Weather Week**

April 5-8, 2005  
Broomfield, Colorado

All posters can be displayed in the Chautauqua Room and the Red Rocks Room from Tuesday morning through Thursday afternoon. The posters are arranged in the rooms by major topic area and by poster number. The poster numbers, titles, and authors are listed below. Also indicated are the session titles and the days (Tuesday, Wednesday, or Thursday) when the authors are encouraged to be in attendance at their posters.

### **Space Weather Operations and Space Weather Education**

Author in Attendance: **Tuesday**

1. *Space Weather Fifty Years Ago*  
Helen Coffey and David Boteler
2. *Redefining the Solar Cycle: An Operational Perspective*  
William Murtagh, Larry Combs, Misty Crown, Edward Erwin
3. *SPIDR III: A Web Services Based System for Managing and Accessing Solar Terrestrial Physics Data*  
Rob Redmon, Eric Kihn, Mikhail Zhizhin
4. *Space Weather Mission Impacts Matrix Tool*  
Peter J. Citrone
5. Regional Warning Center - Warsaw  
I. Stanislawska and G. Juchnikowski
6. *Space Weather Services offered at the SIDC/RWC Belgium*  
R. Van der Linden, P. Vanlommel, D. Berghmans, E. Robbrecht, F. Clette, B. Nicula, A. Zhukov, L. Wauters, R. Warnant, E. Pottiaux, S. Lejeune, A. Barre, M. Bavier, H. Nebdi, J.-C. Jodogne, J. Rasson, K. Stegen, D. Heynderickx, M. Roth, J. De Keyser, M. Kruglanski, J.-P Henry, J.F. Marche
7. *Development of Space Weather Related Services for Real-time GPS Applications*  
R. Warnant, M. Bavier, S. Lejeune, E. Pottiaux, B. Andonov, I. Kutiev, A. Barr, H. Nebdi, J. Rasson, R. Van der Linden.
8. *Commercial Space Transportation: Where We Are and Where We Are Going*  
Karen Shelton-Mur
9. *Web Based Tools for Teaching Space Weather*  
I. Doxas and E. Svirsky

10. *Graduate Degree in Space Weather at George Mason University*  
Arthur I. Poland

11. *Proposal for a CISM Short Course on Space Science*  
D. Baker, R.S. Weigel, and M. Gehmeyr

## **Solar and Interplanetary**

Author in Attendance: **Tuesday**

12. *Can We Predict When the Next Solar Cycle is About to Take Off?*  
Julia L. R. Saba, Keith T. Strong, Gregory L. Slater

13. *Sunspot Pattern Classification using PCA and Neural Networks*  
T. Rajkumar (SAIC at NASA Ames), D.E. Thompson (NASA Ames), G.L. Slater (Lockheed Martin Solar and Astrophysics Lab)

14. *Discriminant Function Analysis for Objective Prediction of Solar Flares*  
Evelyn Andersen Schumer; K.D. Leka; Graham Barnes; Devin Della-Rose

15. *Measuring the Magnetic Free Energy Available for Solar Activity*  
K. D. Leka, T. R. Metcalf, D. L. Mickey

16. *EUV Velocity Measurements in Solar Features as Measured by CDS on SOHO*  
Christina Nestlerode, Dr. Arthur I. Poland

17. *The Frequency Agile Solar Radiotelescope and Space Weather*  
D. E. Gary, T. S. Bastian, S. M. White, T. H. Zurbuchen

18. *New SET Research and Operational Products: X-Ray Indices, Flare Evolution Predictions, and SOLAR2000 v2.25*  
S. Dave Bouwer and W. Kent Tobiska

19. *Development of an Onboard Solar Energetic Particle Event*  
John S. Neal and Lawrence W. Townsend

20. *Space Weather Observations at Mars*  
C. Zeitlin, F. Cucinotta, T. Cleghorn, P. Saganti, K.T. Lee, L.S. Pinsky, V. Andersen, W. Atwell, R. Turner, W. Boynton, I. Mitrofanov

21. *Solar Radiation Alert System*  
Kyle Copeland, Herbert H. Sauer, Wallace Friedberg

22. *Space Weather Radiation Information for Aircrew*  
Matthias Meier and Rainer Facius

23. *Comparison of the Proton Fluxes Data from the Solar Flares Received with the GOES and the METEOR Detectors*  
S.I. Avdyushin, V.A. Burov, Y.P. Ochelkov

24. *SEP Event Modeling Approach for CISM*  
J.G. Luhmann, S. Ledvina, D. Krauss-Varban, I. Roth (SSL, University of California, Berkeley), D. Odstrcil (CIRES and NOAA/SEC), P. Riley (SAIC)

25. *Magnetic Clouds and their Terrestrial Impact*  
Cynthia Lopez-Portela and Xochitl Blanco-Cano

26. *Validation of a Coupled Source Surface to MHD Model System at ACE and Ulysses*  
Thomas Detman, Craig (Ghee) Fry, Zdenka Smith, and Murray Dryer
27. *Demonstrating Capabilities of the HAFv.2, 3 D Modeling Code and its Use in Determining Inputs to Sun-Earth Modeling Codes Using the Halloween 2003 Events*  
Zdenka Smith, Wei Sun, Murray Dryer, Craig D. "Ghee" Fry
28. *Interactive Visualization of Solar Mass Ejection Imager (SMEI) and Interplanetary Scintillation (IPS) Volumetric Data*  
B.V. Jackson, Y. Yu, P.P. Hick, A. Buffington, (UCSD/CASS) and D. Odstrcil (University of Colorado)
29. *Space Weather Experiment of SmartSat Program*  
Tsutomu Nagatsuma, Maki Akiokai, Wataru Miyake, Kazuhiro Ohtaka, Tateo Goka, Haruhisa Matsumoto, Hideki Koshiishi

## **Magnetosphere**

Author in Attendance: **Wednesday**

30. *Standardization Process for Space Radiation Models Used for Space System Design*  
Janet Barth, Eamonn Daly, Donald Brautigam
31. *The Virtual Radiation Belt Observatory*  
J.C. Green, D.N. Baker, E.A. Kihn, J.F. Fennell, J.B. Blake, G.D. Reeves, R.H. Friedel, R.E. McGuire, S.F. Fung, S.G. Kanekal, G.M. Mason, E.J. Rigler, R.S. Weigel
32. *HEO Satellite Surface Charging in 1995-2002*  
J. F. Fennell and J. L. Roeder
33. *The Relationship Between Spacecraft Anomalies and Extreme Space Weather*  
H. C. Koons
34. *Radiation Belt Forecasting with Linear State-Space Models*  
E.J. Rigler, D.N. Baker, M.R. Presicci, R.S. Weigel
35. *The Phase Space Density Distribution of Relativistic Electrons in Geomagnetic Storms*  
Y. Chen, R. H. W. Friedel, G.D. Reeves
36. *The Formation of Cold Dense Plasma Sheet*  
Wenhui Li, Joachim Raeder, John Dorelli, Marit Oieroset, Tai D. Phan
37. *Computational Cost Estimates for Using Branch Prediction and Speculative Execution in Magnetospheric Data Assimilation*  
I. Doxas, W. Horton, J. Lyon, M. Wiltberger, R. Weigel
38. *Toward Predicting Field-Aligned Currents Associated with Sudden Impulse Events*  
D.L. Murr, S.G. Shepherd, M.J. Holliday
39. *Predicting Ground-Induced Currents Using ACE Data*  
Harish Palanathanalam-Madapusi, Dennis S. Bernstein, Aaron Ridley
40. *Improved Predictions of Geomagnetic Perturbations*  
D. R. Weimer

41. *Validation of the Real-Time CISM Ap Forecast Model*  
R.S. Weigel and M. Gehmeyr
42. *Ground Level Assimilative Model (GLAM) for Geomagnetic Storm Conditions – A System for Nowcasting and Forensic Analysis of Geomagnetic Storms and their Impacts on Electric Power Grids*  
John Kappenman, Jeffrey Patrick, Khaled Ejaz, Metatech Corp.
43. *Space Weather Events and Geomagnetic Activity in 2004*  
H.-L. Lam, L. McKee, L. Trichtchenko, D. Danskin
44. *Statistics of Changes in the 1 Minute Geomagnetic H Component at Newport*  
K.J. Remick and J. J. Love

## **Ionosphere**

Author in Attendance: **Thursday**

45. *The Space Environment Sensor Suite for NPOESS*  
T. E. Christensen, S. Talmadge, S. K. Ubhayakar, V. Grano, Lt. Col. Michael Bonadonna, F. Denig
46. *USC/JPL GAIM: A Real-Time Global Ionospheric Data Assimilation Model*  
Brian Wilson, Lukas Mandrake, George Hajj, Chunming Wang, Xiaoqing Pi, Byron Iijima
47. *Coming Soon: Near Real-time Ionospheric Data Products from COSMIC*  
S. Syndergaard, W. S. Schreiner, C. Rocken, and D. C. Hunt
48. *Operational Space Weather Service for Regional GNSS Based Applications*  
N. Jakowski, S. M. Stankov, D. Klaehn, C. Becker, J. Rueffer, B. Huck, A. Rietdorf, C. Daub, G. Weber, M. Meier
49. *DIAS - European Contribution to Near-Real Time Ionospheric Data and Relevant Products Dissemination*  
I. Stanislawska, A. Belehaki, Lj. R. Cander, B. Zolesi, J. Bremer, C. Juren, D. Dialetis, M. Hatzopoulos
50. *COST 296 MIERS – Mitigation of Ionospheric Effects on Radio Systems - New European COST Action*  
Lj. R. Cander, I. Stanislawska, B. Zolesi
51. *Equatorial and Low Latitude Spread F Irregularity Characteristics Over the Indian Region and their Prediction Possibilities*  
R. S. Dabas, Rupesh M. Das, V. K. Vohra, S.C. Garg, C. V. Devasia, K. S. V. Subbarao, K. Niranjana, P. V. S. Rama Rao
52. *Power Spectral Densities of EPBs Observed by ROCSAT-1 and DMSP and Comparison with predictions of Bubble Simulation Model*  
K. D. Gruenstein, M. J. Starks, D. L. Petro, J. R. Retterer, F. J. Rich, C. S. Lin
53. *Electromagnetic Energy Deposition During Geomagnetic Superstorms*  
Cheryl Y. Huang, William J. Burke, Frederick J. Rich
54. *Image Comparisons with the Auroral Electron and Ion Hemispheric Power after Intersatellite Adjustments and Geophysical Variations*

Barbara A. Emery (HAO/NCAR, [emery@ucar.edu](mailto:emery@ucar.edu)), David S. Evans (SEC/NOAA, [david.s.evans@noaa.gov](mailto:david.s.evans@noaa.gov)), Frederick J. Rich (AFRL, [frederick.rich@hanscom.af.mil](mailto:frederick.rich@hanscom.af.mil)), Valerie Coumans (University of Liege, Belgium, [v.coumans@ulg.ac.be](mailto:v.coumans@ulg.ac.be)), Glynn Germany (University of Alabama/Huntsville, [germanyg@cspar.uah.edu](mailto:germanyg@cspar.uah.edu)), and Tom Sotirelis (APL/JHU, [tom.sotirelis@jhuapl.edu](mailto:tom.sotirelis@jhuapl.edu))

55. *Simulating Satellite Drag in a Modeled Atmosphere*  
Omar Nava and Delores Knipp